

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION

3D SYSTEMS, INC.,

Plaintiff,

-vs-

Case No. 05-74891

Hon: AVERN COHN

ENVISIONTEC, INC., and  
ENVISIONTEC GMBH,

Defendants.

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**MEMORANDUM AND ORDER**  
**ADOPTING REPORT AND RECOMMENDATIONS OF SPECIAL MASTER (Doc. Nos.**  
**146, 153)**  
**AND**  
**GRANTING IN PART AND DENYING IN PART DEFENDANTS' MOTION FOR**  
**SUMMARY JUDGMENT OF NON-INFRINGEMENT (Doc. No. 104)**  
**AND**  
**DENYING PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT OF INFRINGEMENT**  
**(Doc. No. 119)**

I. Introduction

This is a patent case involving the art of stereolithography. The background of the case is reflected in the Markman Memorandum And Order filed February 6, 2008 (Doc. No. 98). The case involves four patents: U.S. Patent No. 5,630,981 (the '981 Patent), Method for Production of Three-Dimensional Objects by Stereolithography; U.S. Patent No. 5,651,934 (the '934 Patent), Recoating of Stereolithographic Layers; U.S. Patent No. 5,902,537 (the '537 Patent), Rapid Recoating of Three Dimensional Objects Formed on a Cross-Sectional Basis; and U.S. Patent No. 4,999,143 (the '143 Patent), Method and Apparatus for Production of Three-Dimensional Objects by Stereolithograph.

Before the Court are motions for summary judgment on infringement; defendants have moved for non-infringement (Doc. No. 104) and plaintiff has moved for infringement (Doc. No. 119). The motions were referred to a special master for a report and recommendation (Doc. No. 126 and Doc. No. 151). The special master issued the following:

- The Special Master's Report and Recommendation on the Parties' Summary Judgment Motions (Amended to Include Table of Contents) (Doc. No. 146)
- The Special Master's Superseding Report and Recommendation on the Parties' Summary Judgment Motions (Doc. No. 153)
- The Special Master's Response to the Parties' Objections to His Report and Recommendation filed May 12, 2009 (Doc. No. 153-2)
- Genuine Issues of Material Fact That Require Trial (Doc. No. 153-3)

Briefly stated, the special master recommends that summary judgment of non-infringement by defendants' Prefactory and Vanquish devices be granted as to the '537 Patent and the '143 Patent, and further recommends that there are genuine issues of material fact regarding the claim of infringement of the '981 Patent (Prefactory and Vanquish device) and the '934 Patent (Vanquish device) which require trial.

Both parties filed objections and the Court held a hearing on the objections. The matter is ready for decision. For the reasons that follow, the report and recommendations of the special master will be adopted as the findings and conclusions of the Court on the parties infringement motions.

## II. Background

A brief description of each of the four patents and its paradigm claim follows:

- '981 Patent - claim 11. Patent relates to stereolithography generally.

- '934 Patent - claim 2. Patent concerns, inter alia, a “smoothing element” or a winged blade that forms a uniform coating over each previously solidified object layer.
- '537 Patent - claim 81. Patent relates to the use of an applicator connected to a vacuum pump to “recoat” fresh curable liquid over each previously solidified object layer.
- '143 Patent - claim 35. Patent concerns the formulation of “removable supports” for the object.

There are two accused devices: the Prefactory machine and the Vanquish machine. Each machine is used to make three-dimensional objects based on a computer model. Each uses a digital light projector to selectively project light onto curable resin. In the Prefactory machine, the digital light projector is positioned below the curable resin. In the Vanquish machine, the build platform moves continuously downward and away from the digital light projector.

In the Memorandum of January 6, 2010 (Doc. No.163), the Court described its understanding of the special master’s recommendations and the issues in the case. See 3D Systems, Inc. v. Envisiontec, Inc., 2010 WL 55505 (E.D. Mich. Jan. 6, 2010).

### III. Legal Standard

A district court must conduct a de novo review of the parts of a special master’s report and recommendation to which a party objects. 28 U.S.C. § 636(b)(1)(B). The district “court may accept, reject, or modify, in whole or in part the findings or recommendations” of a special master. Id.

#### IV. Analysis

As an initial matter, no useful purpose would be served by an extended discussion of the infringement issues. The Court is satisfied that, notwithstanding the notwithstanding the volume of papers filed in support and in opposition to the special master's recommendations, they should be followed. As such, what follows is a brief discussion of each patent.

##### A. The '981 Patent

As to the '981 Patent, plaintiff does not take issue with the special master's recommendation that there are disputed issues of fact as to infringement which must be resolved by a trial.

Defendants' objections require reading limitations in the claim language that were rejected in the Markman phase of the case. As such, the objections are not well-taken.

The differences between voxelization and slicing is not easy to understand. There is ample evidence in the record that voxels forming layers in the Prefactory and Vanquish devices represent cross-sectional layers of the object to be formed. Whatever the difficulty in deciding whether voxelization and slicing is such that a finding of non-infringement is called for in contrast to being captured by Claim 11 of the '981 Patent, a properly instructed jury must make this decision.

##### B. The '934 Patent

As to the '934 Patent, the special master observed the operation of the Vanquish device. He also heard argument on how it operates; he could not say for certain whether or not the blade contacts the uncured resin and what happens when it passes over the previously formed resin layer. He said a jury must decide this. The Court does

not disagree.

This recommendation received more attention than any other recommendation of the special master. The special master discussed plaintiff's objections to a trial on the question of whether or not the blade in the Vanquish device contacts the resin in the Special Master's Response To The Parties' Objections To His Report And Recommendation Filed May 12, 2009 (Doc. No. 153-2). Because of the Court's uncertainty following the hearing on the parties' objections, and particularly the plaintiff's powerpoint presentation at oral argument, the Court directed a supplemental paper be filed. See Supplemental Joint Statement of Material Facts With Respect to U.S. Patent No. 5,651,934 (Pursuant to the Court's Directive at the Hearing on January 11, 2010) (Doc. No. 164).

The Supplemental Joint Statement is highly argumentative, particularly defendants' Response statements and plaintiff's Reply statements. Whether there is a distinction between "contacting the material," as repeatedly stated in the text of the '934 Patent and "touching" the material, as stated in the several descriptions of the Vanquish device in action is an open question which cannot be resolved on the record as it stands. The meaning of the phrase "contacting the building material" was not raised in the Markman phase of the case.

Overall, there are genuine issues of material fact as to whether the Vanquish machine infringes Claim 2 of the '934 Patent.

### C. The '537 Patent

As to the '537 Patent, the special master reported that the cooling blades of the Vanquish device do not apply or disperse uncured building material, and therefore the

device does not infringe. The Summary of Invention (col. 5, ll 22-25) says “. . .building material is supplied to the applicator or other device used to dispense building material are disclosed.” To reject the special master’s recommendation of non-infringement would effectively re-open claim construction. The special master’s finding of non-infringement is correct.

Additionally, there was no prejudice to plaintiff in the manner in which the issue was raised. It had ample opportunity to ask that it be given more time to respond. A fair read of Averbach v. Rival Mfg., 879 F.2d 1196 (3d Cir. 1989), which plaintiff cites in support of its prejudice argument is inapposite; the circumstances in Averbach are far different than those here.

#### D. The ‘143 Patent

As to the ‘143 Patent, the special master’s finding that the Vanquish device’s support is not web-shaped, and therefore there is no infringement is correct. As stated by the special master:

. . . the support structures in the Vanquish and Prefactory machines include a base that is perforated in part with non-uniform diamond shaped holes and teeth at the point of contact with the part to facilitate removal of the part from the support.

In contrast, the inventive supports of the ‘143 Patent are provided in the form of “webs.” Webs, in cross section are long slender rectangular structures. The width of a web is designed thin enough to be easy to remove from the part after post curing. The length of a web is designed to meet two requirements: (1) long enough to give good adhesion to the elevator platform (without need of a base), and (2) long enough to span the cross-section of the object (to give support to cross-hatch and the boundaries enclosing it). (‘142 Patent, col. 6, ll. 52-[6]1)

Special Master’s Superceding Report and Recommendations on the Parties’ Summary Judgment Motions (Doc. No. 153) at p. 32.

V. Conclusion

A.

Accordingly, the report and recommendations of the special master are ADOPTED as the findings and conclusions of the Court on the parties' infringement motions.

Defendant's motion for summary judgment of non-infringement is GRANTED IN PART AND DENIED IN PART as follows:

Summary judgment of non-infringement of the '537 Patent and the '143 Patent by the Prefactory device and the Vanquish device is GRANTED.

Summary judgment of non-infringement of the '981 Patent by the Prefactory device and the Vanquish device is DENIED.

Summary judgment of non-infringement of the '934 Patent by the Vanquish device is DENIED.

Plaintiff's motion for summary judgment of infringement is DENIED.

B.

A status conference will be held on Monday, April 12, 2010, at 2:00 pm to set the course of this case to trial. See Genuine Issue of Material Fact That Requires Trial (Doc. No. 153-2).

SO ORDERED.

Dated: March 9, 2010

s/Avern Cohn  
AVERN COHN  
UNITED STATES DISTRICT JUDGE

**05-74891 3D Systems, Inc. v. Envisiontec, Inc., et al**

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing document was mailed to the attorneys of record on this date, March 9, 2010, by electronic and/or ordinary mail.

s/Julie Owens  
Case Manager, (313) 234-5160